

I opened two of the remaining eggs and took out the young, which were alive. They were much less advanced than the hatched bird. The most forward would probably have been hatched next day, but the other had no scales on its legs, and would probably not have come out for four days*.

II.—*On the Birds of Gazaland, Southern Rhodesia.*

By C. F. M. SWYNNERTON.

(Plate I.)

ALTHOUGH the greater portion of the high veld of Gazaland is now included politically in Mashonaland, under the name of the "Melsetter District," from a scientific point of view, and from the view of the natives, Gazaland (the country conquered at the commencement of the last century by Mauikusa and his Zulus—the "Aba-Gaza") constitutes a very distinct district, characterized by the irruption of many trans-Zambezian forms and in parts by its richer and more varied vegetation. The highlands under the rule of the Chartered Company are separated from Mashonaland proper by the Umvumvumu River on the north and by the Sabi (here a wide sand-river, flowing at the bottom of a hot dry valley at an elevation of about 1000 feet) on the west. They consist of grassy mountains, varying from 3000 feet in parts of Southern Melsetter to the 8000 feet or more of the rugged Chimanimani range, the whole being well watered by numerous permanent streams and so varied in character as to afford an unusually interesting field for the naturalist, whatever his special hobby may be. Much of the country, especially at the higher elevations, is open and covered with short turf,

* A single egg which I found on July 5, and thought at first was the egg of this Grebe, is so much larger than any of the eggs described above that I do not think it can be an egg of the Dabchick. It might belong to *P. nigricollis*, although I have never seen that species at Chinkiang. It measures 1.61 × 1.04". It is greenish white, and its shape is narrowly oval, with one end much pointed.

but woods of *Brachystegia* and other trees of similar habit, with a bird-life much resembling that of Salisbury, are not infrequent. These woods attain their greatest development, so far at least as the high veld is concerned, on the hills of Chikore, which separate Chirinda from the Sabi valley, and in portions of the Jihu and the Busi-Umshanetzi country. Patches of splendid virgin-forest (text-fig. 1), consisting of trees, mostly evergreen, of great height and girth, which

Text-fig. 1.



Tropical Forest of Chirinda.

shade a dense undergrowth of shrubs and saplings, are scattered throughout the district, the most notable forest being that of Chirinda. These areas, in common with the wooded kloofs, supply a limited, but unusually interesting, list of birds peculiar to themselves, including, amongst others, *Criniger milanjensis* and *Buceros cristatus*, both common species. Last, but, to the ornithologist, by no means least

productive, comes the "Jihu"—a term applied both to a grass and to the rich red soil on which it commonly grows, but more especially to the whole district lying to the south of Chirinda, which belongs entirely to this type of country. It is covered with dense grass-jungle, rising to ten feet or more in height, bound together in an impenetrable mass by a thorny *Smilax*, the stinging Velvet-Bean (*Mucuna*), yams of more than one species, and other kinds of rank growth, interspersed with thorn-trees, or, in parts, with "Tshianga," "Mubhungu," and other comparatively large trees of the *Brachystegia* type of growth, which form fine open woods and are swarming with birds. Mount Shinguné bounds the Jihu on the south, falling abruptly 1000 or 1500 feet to the Umswirezi, which here winds sluggishly through the centre of a broad flat valley, exceedingly fertile in a good rainy season, but liable to drought. In consequence of this and of the great power of the sun, it is comparatively bare, the grass, though long, not attaining the rank growth of the "Jihu," and the bush where it occurs being of a rather stunted character. The Umswirezi itself, however, and the permanent streams entering it from the hills are marked by lines of magnificent Adinas, Khayas, and other fine trees, which, at the time of my visit, in the commencement of November, were full of birds.

It was in these flats, at the foot of Shingune, that Gungunyana, grandson of Mauikusa and the last of the Gaza kings, held his court in traditional Zulu style for many years previous to his capture in 1896 by the Portuguese.

Many of the more striking birds were in these by-gone days reserved exclusively for the use of the chief and his wives, and death was the penalty for any infringement of this rule.

The fact that the Aba-gaza, or Manguni, as they are here more commonly entitled, settled in this part of the country, and recognised the native chiefs, instead of using it as a mere raiding ground, has resulted in the adoption, south of the Lusitu River, of their language, Singuni or Zulu, and

of many of their customs and traditions by the Aba-ndawe. Thus most of the men (since they had to appear at court), and the women to a less extent, now speak two languages, with the result that every bird—at least those which they trouble to differentiate at all—has two names, both usually onomatopœtic, and sometimes two sets of traditions and two or more renderings of the call-notes. It thus, too, comes about that some species are now best, if not exclusively, known by their Singuni, others still by their Tshindawe name.

“Mafusi,” a locality which I shall have occasion to mention again, lies between the heights of Chirinda, Mounts Maruma and Mpengo, with their continuation north-east to the Lusitu to the east, and the rocky Sitatonga range, a good day’s walk further *east*, and is bounded on the north and south by the Lusitu and Buzi respectively. It is ruled by Mafusi, Makwiana, and other chiefs, and consists for the most part of a network of low, “Jihu”-covered hills, drained by the Tchikamboge, Umshanetzi, Musesi, and other streams. Practically it is a north-eastern extension of the Jihu, and varies from 2000 to 3000 feet in elevation, though a certain amount of high veld with an altitude of 4000 feet is included in it. It contains small patches of true forest and is particularly rich in bird-life. I made a small collection there in 1899. The greater part of Mafusi, as well as of the Jihu and the valley of the Lower Umswirezi, lies on the Portuguese side of the border.

I have not had time to take up the study of nidification properly, but the majority of the few species of which I have observed the nesting-habits belong to our most interesting group, that of the “birds of the forest.” House-keeping must be somewhat up-hill work for them in Chirinda. Time after time nests which I have been watching have been destroyed, the spoor of the baboon below revealing the identity of the culprit, and it is really wonderful that the smaller forest-birds keep up their numbers in the face of this systematic destruction. Squirrels too, which are abundant in Chirinda, are doubtless responsible for a good deal of damage, and I have occasionally

found the contents of a nest broken by the fall of a branch. Kafirs will frequently spare a nest with eggs, but only with the idea of robbing it later, when the nestlings, which they invariably eat, are hatched. I have, however, frequently noted the disappearance of eggs under circumstances which, quite apart from the total absence of tracks, precluded the possibility of native agency, and I have very little doubt that in many of these cases they have been removed by the bird itself to a place of greater safety as a result of their having been handled. The Kafirs themselves invariably account for the fact in this way, and are in the habit, when removing part of a clutch or leaving eggs to hatch which they have touched (a thing they usually avoid), of plucking out an eyelash and placing it in the nest, believing that this has the effect of preventing the birds from removing the eggs.

Evidently, should my explanation be correct, the birds of this country have such a habit developed to a far greater degree than those of Europe, doubtless as the result of the constant interference with their operations which I have observed to take place. Again, the small number of eggs—from two to three—laid by the vast majority of our local species must strike anyone who has birds'—nested at all extensively in England, where clutches of five are the rule, and in many cases larger numbers are no exception.

With regard to the fact of small birds of various species herding together under the leadership of the Drongos, mentioned by Mr. G. A. K. Marshall in 'The Ibis' for 1900 (p. 222), I may state that I have observed the same phenomenon here, particularly in the areas of open bush; but, though the habit is undoubtedly a great protection to the weaker species, and has evidently reached its present high development as a result of this, yet the fact that the small birds peculiar to the forest—the canopy and dense undergrowth of which ought to afford ample protection from the Hawks (and Hawks are in fact scarce in this district as compared with the neighbourhood of Salisbury)—also possess this habit, though perhaps in a somewhat less marked degree,

appears to me to indicate that it is due in part to mere social instinct.

I may frequently, in the following notes, have occasion to mention the "Gumiti-berry," a small bright yellow fruit with yellowish milky juice and a hard black pyramidal seed, the product of a large Urticaceous forest-tree, not yet identified. It appears to be greatly relished by the forest-birds, even those that are most insectivorous, and supplies them with food for several months in the year.

I take this opportunity of heartily thanking Capt. G. E. Shelley for his kindness in determining a number of specimens sent to him and in revising the present notes. I wish also to thank my old friend, Mr. Guy F. Marshall, for his never-failing help and encouragement.

The following list is obviously anything but complete. I was able to devote very little time to the subject until a year ago, and in particular have had no opportunity of examining any of the larger rivers, all of which are said to be extremely rich in water-birds. Moreover this district is anything but deficient in Weavers, Warblers, and many other families which are but poorly represented in my list.

[Along with the present paper Mr. Swynnerton forwarded to England a collection of skins, which Capt. Shelley carefully examined during his study of the MS. He described two new species from it at the meeting of the B. O. C. in June 1906 (*Erithacus swynnertoni* and *Apalis chirindensis*), but (owing to ill-health, I regret to say) has not been able to complete his revision. Besides these novelties it appears that the following twelve species from Mr. Swynnerton's collection are new to the Fauna of South Africa south of the Zambesi, not being included in Mr. W. L. Scater's work on that subject:—

<i>Estrilda clarkii</i> (p. 39).	<i>Sylviella whytii</i> (p. 56).
<i>Nectarinia arturi</i> (p. 42).	<i>Monticola</i> sp. inc. (p. 60).
<i>Cinnyris niassæ</i> (p. 43).	<i>Erithacus swynnertoni</i> (p. 61).
<i>Telephonus anchietæ</i> (p. 47).	<i>Pachyprora dimorpha</i> (p. 69).
<i>Laniarius bertrandi</i> (p. 48).	<i>Trochocercus albo-notatus</i> (p. 70).
<i>Phyllostrophus milanjensis</i> (p. 54).	<i>Terpsiphone plumbeiceps</i> (p. 71).

It is therefore evident that Mr. Swynnerton has made no slight addition to the Avifauna of South Africa, besides providing us with excellent field-notes on many little-known species.

The nomenclature and arrangement of Mr. W. L. Selater's 'Fauna of South Africa' are followed throughout this paper.—P. L. S.]

1. *CORVULUR ALBICOLLIS*. White-necked Raven.

Extremely plentiful throughout the district in pairs or in flocks. Sometimes before a storm they will rise above the forest of Chirinda in large numbers—a hundred or more—and wheel and caw in the air after the manner of English Rooks under similar circumstances. They are essentially carnivorous, taking the place of the Vultures on the highlands, while their fondness for grubs and grasshoppers renders them occasionally of service to the tobacco-planter; but they do considerable damage to the mealie-crop, both when first sown and when ripening. It is said that Gungunyana regarded the Ravens as his especial pets, and would even order an execution—usually of a man of whose increasing wealth he was jealous—expressly “to feed the Ravens,” should the flocks, which always frequented the gate outside which the dead bodies of his victims were exposed, have been without human food for some length of time. These birds breed in the rocky “kraantzes” to be found here and there throughout the district.

2. *CORVUS SCAPULATUS*. Pied Crow.

This Crow is comparatively rare on the Gazaland highlands, and the exceptional individuals which may be seen are usually, I believe, on their way from the lowlands to the more western or northern districts of Mashonaland, or *vice versa*. A pair, however, recently built in a large mahogany-tree (*Khaya senegalensis*) close to the homestead of my neighbour, Mr. Odendaal, and brought off their young, two in number: the four birds may now (end of February) be seen daily in his mealie-field. This species appears to be more plentiful in the lowlands.

3. *CORVUS CAPENSIS*. Black Crow.

This is even rarer than the preceding bird. I saw a pair in the neighbourhood of the Nyahodi River, in Northern Melsetter, in February, 1900.

4. *BUPHAGA AFRICANA*. Yellow-billed Oxpecker.

Fairly plentiful in Mafusi and in other parts of the district, and particularly so, the natives say, in the Jihu, where buffaloes abound. Its harsh cry frequently betrays the presence of big game to the hunter. The flesh of this bird is never eaten by the natives, as is also the case with the Raven.

5. *HYPHANTORNIS NIGRICEPS*. Black-headed Weaver-bird.

Common in some parts of the district, notably the Tehikamboge Valley, Mafusi, where the nests are plentiful, hanging in colonies from the twigs of the thorn-trees. They are not unlike those of *H. velatus*, with the hole below and no tunnel, but more untidy. The crops of those procured contained seeds only.

6. *SITAGRA OCULARIA*. Smith's Weaver-bird.

I have shot or seen this Weaver-bird on a few occasions in different parts of the district, including the Jihu, and have little doubt that it will prove to be fairly common. Two specimens have been examined, the crops of which contained "lady-birds" and other beetles—no seeds. The nest is entered by a tunnel which projects horizontally from one side.

7. *SITAGRA CAPENSIS*. Cape Weaver-bird.

This handsome Weaver-bird is plentiful both in grass-jungle and along the banks of streams, where its harsh cry may often be heard. Its nest, suspended at the end of a twig, strongly resembles that of the preceding species. Out of four crops examined, three contained seeds only and the fourth a large bug. Length in the flesh 7·1 inches.

8. *SYCOBROTUS STICTIFRONS*. Black-backed Weaver-bird.

This is the common and, so far as I know, the only

Weaver-bird of the forest. Its note is a loud “*spink, spink,*” and it may occasionally be seen going about in small family-parties amongst the higher branches, or searching the undergrowth, especially leaves which may have dried on a fallen or damaged branch, for the insects which form its chief food; but, on the whole, it is a silent and somewhat solitary bird. I have frequently watched it sitting perfectly still or moving about quietly in the foliage, and on more than one such occasion have shot it in mistake for a Bush-Shrike. A nest common in Chirinda belongs, I have no doubt, to this bird, but I have not yet found one containing eggs. It is always suspended at the end of a long trailing twig or vine, commonly of the thorny acacia, at a considerable distance from the ground, and is seldom accessible; it is composed entirely of roots, vines, and tendrils, usually of a dark colour, loosely woven together, the nest proper measuring from 8 to 10 inches in depth and from 3 to 3.5 in diameter, and the tunnel, which is vertical and entered from below, from 6 to 9 inches in length (from the door of the cup) and about 2.5 in diameter. The contents of the crops examined have been Gumiti-berries, larvæ, beetles, and other small insects. Length in the flesh 6.25 inches.

9. *PYTELIA NITIDULA*. Hartlaub’s Red-faced Weaver-bird.

Seen occasionally in Chirinda and on its outskirts: it is the only Waxbill, so far as I am aware, which habitually enters the forest.

10. *LAGONOSTICTA NIVEO-GUTTATA*. Peters’s Ruddy Waxbill.

I have frequently met with this pretty Waxbill along the outskirts of Chirinda, and on one occasion I watched a pair picking up seeds in the path, some considerable distance inside the forest-patch of Chipete; but this is, I believe, unusual. The crops examined contained seeds and the *débris* of small insects.

11. *ESTRILDA ASTRILDA*. Common Waxbill.

This bird is found in large flocks in the winter, especially about fallow land, living on the seeds of the weeds and grasses. The natives, on catching one, use it as a decoy, and tie it by the leg in the centre of a number of limed twigs; usually with considerable success, for it calls well and soon brings its fellows to the spot.

12. *ESTRILDA CLARKII*. Sanguineous Waxbill.

Estrellda clarkei Shelley, B. Afr. iv. p. 209.

I obtained a single specimen of this Waxbill on the 10th of August, 1899, in a small swamp in Mafusi's country, at an altitude of 4000 feet. The crop contained small seeds only.

13. *SPERMESTES SCUTATUS*. Hooded Weaver-Finch.

In the middle of December I found a nest of this species, cleverly hidden amongst the leaves of a young "Mushagata" tree standing in open grass-veld, about nine feet from the ground. It was a thick-walled and, in comparison with the size of the bird, a bulky structure, composed entirely of grass in flower and seed, which gave it quite a striking appearance: the ends of some of the grasses, studded with seeds, were brought forward over the entrance so as to form a rough porch, rather after the manner of *Coliopasser ardens*; while grasses in flower, and therefore soft, were used almost exclusively for the lining. Diameter of nest, measured externally, from 4 to 4.5 inches; diameter of cup about 3.5. Both birds flew out as I approached, having probably been engaged in putting the finishing touches to the interior, for there were no eggs.

14. *SPERMESTES NIGRICEPS*. Rufous-backed Weaver-Finch.

This bird is not uncommon in the rank grass which skirts Chirinda. It is found in pairs or small parties.

15. *PYROMELANA ORYX*. Red Bishop-Bird.

Pyromelana oryx sundevalli Shelley, B. Afr. iv. p. 98.

By no means plentiful, but occasionally found in grass-jungle.

16. *PYROMELANA CAPENSIS XANTHOMELÆNA*. Black-thighed Bishop-Bird.

Much commoner than the preceding species, and plentiful in the long-grass country with open bush.

17. *COLIOPASSER ARDENS*. Red-collared Widow-Bird.

This is the commonest species of the grass-veld, but the habits of our local form differ greatly from those of the Salisbury bird. Here it does not appear to be particularly partial to water, and the wariness noted by Mr. Marshall is chiefly conspicuous by its absence. I have found several of its nests containing eggs in February, a fact which implies second broods. They are placed three feet or so from the ground in long grass or weeds, and are built entirely of grass, the finest portions, consisting of the heads stripped of their seeds, forming the interior; the loose ends, being brought forward in a bunch over the top, act as a long fuzzy canopy to ward off the sun and rain. One specimen, which shews signs of inexperience or haste in its construction, practically lacks this canopy, and has a small additional entrance in the side. The eggs are three in number and glossy; they vary from dull bluish white to pale greenish blue, spotted, blotched, and mottled all over with ashy grey and brown of different shades, and much resemble a certain type of egg of the English Tree-Sparrow. This Widow-Bird has here appropriated the name applied in Natal to *Coliopasser progne*, which does not appear to occur in the district. The tail-feathers are much prized by the natives.

18. *VIDUA PRINCIPALIS*. Pin-tailed Widow-Bird.

This is our commonest Widow-Bird, next to *Coliopasser ardens*, and is very tame, frequently keeping about the vicinity of a homestead or entering a Kafir kraal when the women are grinding, and helping itself to the grain. Its habit of dancing in mid-air, all the time jerking its wings and tail and crying "swe swe swe," is distinctly quaint; and on these occasions the children of a kraal will often gather round it and sing in chorus.

I have also seen an apparently pure black Widow-Bird

(perhaps *Hypochera funerea*), on a few occasions, going about in flocks in the Jihu country, but have so far failed to secure a specimen.

19. *SERINUS ICTERUS*. Eastern Yellow Seed-eater.

Extremely plentiful, and, like the preceding species, frequently met with in flocks of a dozen or twenty birds during the winter, when it is particularly partial to old, weed-covered, cultivated ground. Some sunflowers standing just outside my house are a great attraction to these Seed-eaters; and during the past winter several were to be seen daily, extracting the seeds from the old heads. The crops contained small seeds only.

20. *EMBERIZA FLAVIVENTRIS*. Golden-breasted Bunting.

Commonly met with in the open woods. The crops examined contained seeds only.

21. *FRINGILLARIA TAHIPISI*. Rock-Bunting.

In the neighbourhood of Chirinda, at all events, I should say that I have met with this Bunting more frequently than the preceding species. A pair had evidently built in a bank not far from my homestead last December, for whenever I passed the spot one of the birds would cleverly endeavour to entice me away. On the one occasion on which I made a serious attempt to find the nest she finally lost patience, and returning with her mate sat on the bank and abused me heartily.

22. *MIRAFRA FISCHERI*. Fischer's Lark.

Not uncommon, being frequently seen running or standing still in the roads and paths; when disturbed it flies up, circling round and settling down again further up the road. The crops examined contained beetles and seeds.

23. *MACRONYX CROCEUS*. Yellow-throated Long-claw.

Abundant everywhere in the open grass-country. The crops examined contained grasshoppers, large coleopterous larvæ, and beetles, and in one case six large moth-larvæ.

24. *ANTHUS LINEIVENTRIS*. Stripe-bellied Pipit.

I obtained two males of this species in an open wood last

June. The crops examined contained beetles, termites, a large centipede, a beetle-larva, two grasshoppers, and, I think, a butterfly.

25. *ANTHUS TRIVIALIS*. Tree-Pipit.

The Tree-Pipit is a common grass-veld species, not unfrequently found in cultivated fields. The crops of those examined contained beetles, larvæ, and termites. A short time ago I observed a pair of the birds which had taken up their stand in front of an ant-heap and were busily engaged in devouring the winged termites as they emerged, occasionally making short flights into the air in pursuit of such as were escaping.

26. *ANTHUS RUFULUS*. Lesser Tawny Pipit.

I shot one of these birds last year in May in a cultivated field, where I had previously seen them on several occasions. The crops examined contained beetles and larvæ.

27. *NECTARINIA FAMOSA*. Malachite Sun-bird.

I obtained a single male of this handsome species at Mafusi in 1899. The Chindavo name "Tshinyamtsongono" is applied to all Sun-birds.

28. *NECTARINIA ARTURI*. Arthur's Sun-bird.

Nectarinia arturi Sclater, Bull. B. O. C. Dec. 19th, 1906.

I shot two of these birds on the Nyahodi River in July 1899, and subsequently secured others at Mafusi, taking them to be *N. bocagii*; but I am now informed that they belong to a new species allied to *Nectarinia kilimensis*—a most interesting discovery, which adds another bird to the South-African ornithology. It is comparatively common throughout the district, being found at the blooms of the large orange-flowered *Leonotis mollissima*, so plentiful in river-valleys and in rich soil. The crops examined contained flying ants, small flies, and in one case several large gnats.

29. *CINNYRIS AFER*. Greater Double-collared Sun-bird.

I recently secured a male of this species for the first time, on the outskirts of Chirinda.

30. CINNYRIS CHALYBEUS. Lesser Double-collared Sun-bird.

Sometimes seen on the *Leonotis*-clumps or hovering about the flowers of Cannas or Grevilleas, but by no means common.

31. CINNYRIS NIASSÆ. Nyasan Sun-bird.

Cinnyris venustus niassæ Reichen. Vög. Afr. iii. p. 474.

Extremely plentiful throughout the district, and, like the preceding species, a great frequenter of the *Leonotis*-clumps. Many other flowers, however, both wild and cultivated, are very attractive to it; and the Cannas in my garden are seldom without one or more pairs of this charming little Sun-bird. A thorn-hedge, when available, is a very favourite nesting-place.

32. CINNYRIS GUTTURALIS. Scarlet-chested Sun-bird.

This Sun-bird can hardly be said to be common, though occasionally attracted to our gardens or found at some flowering shrub or tree in the veld. It used to be reserved for Gungunyana's wives, who wore the skin of its brilliant scarlet breast as a head-ornament, cutting it so as to include the lower mandible of the bill, which was thrust into the wearer's hair to hold it up.

33. CINNYRIS KIRKI. Kirk's Sun-bird.

An occasional visitor to our flower-gardens, and at times fairly plentiful where sugar-bushes are in flower. The crop of a bird which had been feeding at these flowers contained beetles and ants.

34. CINNYRIS OLIVACEUS. Olive-coloured Sun-bird.

This is the common Sun-bird of the forest. It is one of our few birds which have a sustained song, of the true Sun-bird stamp. This song is somewhat monotonous, but pleasant and far stronger than that of any of its congeners which I have yet heard. It is sometimes kept up for two minutes or more without a pause. Both sexes sing; but it is the male, apparently, which gives these long selections, the female merely joining in occasionally for a stave or two, and the

rest of the time hopping about somewhat excitedly and crying "*cip! cip! cip!*" (the Zulu *c*; there is no English letter to express the sound). When hunting for food in the undergrowth their mutual call is frequently a harsh little "*hoho-hwey! hoho-hwey!*" At the end of February they may be seen going about in family-parties, and it is then that they are most tuneful; in the winter they become comparatively silent, retaining only the Sun-bird's harsher "*chirrrr*," in the use of which they are adepts. They breed from October to January, being apparently double-brooded; and the nest, a designedly loose and untidy structure of moss and leaves, is usually slung from the end of a twig from three to six feet above the ground. Seen from a short distance it resembles a loose piece of moss, such as is frequently seen hanging from the branches of trees or shrubs after having fallen from the trunks above. In a typical nest now before me, 9 inches in length exclusive of streamers, the opening is 2.5 inches deep and 1.75 wide, and is situated rather high in the side; externally the material is chiefly moss with a few small twigs and grasses worked in, the cup itself, which has a diameter of 2 inches from front to back, being compact, well strengthened externally with dry leaves bound on with cobwebs, and lined inside with fine stems and the downy pappi of a common rubber-yielding vine. On two or three occasions I have found a few Owl's feathers wrought into the general structure, though never as actual lining. There are usually a few streamers of moss, roots, or other materials hanging from below the opening. The eggs, invariably two in number, are bluish white, marked, chiefly about the larger end and sometimes in the form of a zone, with small spots and streaks of deep sepia and underlying grey; a few of the markings are slightly suffused. I have noted little or no variation from this type. They measure from 17 to 19 mm. in length by 13 in breadth. The behaviour of the sitting birds I have found to vary irrespective of the state of incubation of the eggs, some leaving at the first alarm, while others have allowed me to inspect them at arm's length. They usually return quickly when flushed from the

nest. Out of five crops examined, two contained minute flies and other small insects, the others Gumiti-berries only.

35. ANTHOTHIREPTES COLLARIS. Collared Sun-bird.

Less common than *Cinnyris niassæ*, for which it is liable to be mistaken at a little distance, but not infrequently to be found on the outskirts of Chirinda. It was particularly plentiful there in pairs at the beginning of May last, attracted by the flowers of a large liana; and again towards the close of February a few pairs or family-parties were always to be seen, though no flowers were in bloom. It is the only Sun-bird, with the exception of the preceding species, which I have found inside the forest: I frequently saw it in May at the red flowers of a shrub which in many parts forms the main forest undergrowth—*Macrorungia* sp. inc. The contents of the crops examined were Gumiti-fruit and one or two small insects.

36. ZOSTEROPS ANDERSSONI. Andersson's White-eye.

A common species in the kloofs and on the outskirts of the forest, where it may be seen in parties of from five to seven, or sometimes as many as ten individuals, searching the foliage and flowers for insects. It is very tame, and will usually allow a close approach. The crops examined contained minute beetles and flies and one spider.

37. PARUS NIGER. Black Tit.

Not an uncommon bird, both in the open woods and in the kloofs; I have also shot it on the Lower Umswirezi. The crops examined contained spiders and caterpillars (hairy and otherwise), earwigs, and other small insects.

38. UROLESTES MELANOLEUCUS. Long-tailed Shrike.

This Shrike is of rare occurrence in the high veld proper, but is said to be comparatively common in the Sabi valley and on the Lower Buzi. Its tail-feathers are worn by the Kafirs.

39. LANIUS COLLARIS. Fiscal Shrike.

A fairly common species, breeding in the Erythrinas and

other trees of the open woods from October to February. It is caught by the natives in traps baited with field-mice.

Its Tshindano name may be translated "impaler of food," in reference to the bird's well-known habits.

40. *LANIUS COLLURIO*. Red-backed Shrike.

This is only a summer-visitor, but is commoner, during its stay, than the preceding species. I have had a number of specimens in immature plumage brought to me of late (February and March) by natives. The crops examined contained beetles, grasshoppers, larvæ (both coleopterous and lepidopterous), a spider, and a small bug; also, in one case, a number of winged termites.

41. *TELEPHONUS SENEGALUS*. Black-headed Bush-Shrike.

This species is plentiful throughout the district. Its song, being uttered somewhat slowly and distinctly, readily lends itself to words, and the natives have two or three different renderings for it, of which the version "Inkós' indúwe tshwa-itá" is perhaps the best. Every year, it is said, in December, Gungunyana would decree the singing of a certain song throughout the land for about six weeks, and at the end of this period indulge in a great slaying; after which the song was not to be sung again till the following year. It appears that after one of these annual massacres the bird's song was interpreted by the youngsters of the royal kraal as "Inkós' indúwe tshwa-itá" ("King, it was you who did it"). This, combined apparently with a fancied resemblance to the tune of the forbidden song, roused the chief's ire, and he ordered that for the future every native finding an "Umquibane" was to slay it. A fairly systematic destruction of the birds "that accused the king" is said to have resulted; but like the blue-buck of Chirinda, also stated to have been destroyed wholesale by Gungunyana, they have since made up for lost time.

The nest, which is usually placed a few feet from the ground in some small tree, is strong, but somewhat slightly built with a shallow cup, that in my collection measuring 1·5 inches in depth and 2·5 by 3·5 in diameter,

inside measurement. It is composed externally of dry weed-stems, a small frond of bracken, and, about the upper portion, a liberal allowance of spiders' webs, and is lined with fine roots. The full clutch consists of three eggs, white in ground-colour and irregularly streaked, spotted, and pencilled, chiefly about the larger end and occasionally in the form of a zone, with brown, dark or pale, yellowish or reddish (more usually the latter), and similar but paler underlying markings of grey, usually purplish in tone. In size they vary from 23.5 to 26 mm. in length and from 17.5 to 19 mm. in breadth.

42. TELEPHONUS ANCHIETÆ. Anchieta's Bush-Shrike.

Telephonus anchieta Gad. Cat. B. viii. p. 129.

I shot a single specimen of this bird, a female, on the Lower Zona in November last; it was sitting on the top of a small tree by the water's edge. Length in the flesh 7.19 inches. The crop contained two dragon-flies.

The species is new to the South-African fauna.

43. DRYOSCOPIUS CUBLA. Lesser Puff-back Shrike.

One of our bolder Shrikes, commonly met with in the open woods and, in winter, in small flocks, which occasionally attach themselves for a time to the Drongo regiment, and search for their food both amongst the higher branches and near the ground. The crops examined contained beetles, larvæ, and grasshoppers.

44. DRYOSCOPIUS GUTTATUS. Hartlaub's Shrike.

The commonest of our Bush-Shrikes, with the possible exception of *Telephonus senegalus*, frequenting especially grass-jungle country and the denser thickets in the kloofs and on the ant-heaps. I have not seen or heard of it in any of the larger forest-patches, though it occurs in the dense growth which skirts them. The crops examined contained locusts, grasshoppers, and beetles.

45. LANIARIUS QUADRICOLOR. Four-coloured Bush-Shrike.

I have seen only two examples of this handsome Shrike. The first was a female trapped on the nest in December. The nest was a rough structure of small twigs, about two feet

from the ground, in the centre of a dense thicket beside a stream, and contained two eggs, evidently the full clutch, as they were hard-set. They were pale blue in ground-colour, spotted and blotched with pale brown and purplish grey, thickly at the larger end, more sparsely elsewhere. In one of them these markings formed a well-defined zone round the thick end. They measured 24 mm. by 16·5. The bird's stomach contained larvæ and a spider. The second specimen, a fine male, I shot on the 23rd of March, on the outskirts of the Chipete forest-patch. Its crop contained two large sphinx-moths and beetles.

46. *LANIARIUS BERTRANDI*. Bertram's Bush-Shrike.

Laniarius bertrandi Shelley, Ibis, 1894, p. 15, pl. ii. fig. 2 (Nyasaland).

I first obtained an example of this species on the outskirts of Chirinda in July last year, but have since found it to be fairly common in the neighbouring forest-patch of Chipete, while in November I shot a male in the large open bush of the Jihu, on the Zona-Kurunadzi water-parting. Its call, which runs up the scale, ending with the repetition of the highest note three or four times, is frequently heard and is very pleasant and flute-like. In December, in Chipete, I shot two grey-checked birds, and am uncertain whether to refer them to this species or not: the first was answering, I judged, one of the black-cheeked birds (which I also shot) with the same ascending note, but, as the bush was dense, I may have been mistaken; the call of the second was certainly quite different—a very liquid rapidly-repeated note, not unlike the “*jug-jug-jug*” of a Nightingale, broken by an occasional harsh “*karr*.”

This species makes an addition to the South-African list.

47. *LANIARIUS SULPHUREIPECTUS*. Orange-breasted Bush-Shrike.

In August 1899 I shot a male of this beautiful species in a wooded kloof in Mafusi's country (alt. 4000 feet), the third which I had seen within a few days. I have since secured a second specimen on the wooded banks of the Lower

Umswirezi (alt. 1000 feet), and again, a few days ago, I saw what I took to be an individual of this species in a small forest-patch close to Chirinda, uttering a musical call resembling the syllables “*pipit-yé! pipit-yé!*”; so that it will probably prove to be not uncommon. It is far more shy and retiring than the following species. The crops examined contained three large caterpillars and the *débris* of small insects

48. LANIARIUS STARKI. Southern Grey-headed Bush-Shrike.

Commonly met with in the winter months in the open woods and occasionally on the outskirts of Chirinda, singly or in pairs; it is a comparatively bold species, always keeping to the higher branches, but often difficult to approach. The crop examined contained the remains of a large green flower-beetle.

49. PRIONOPS TALACOMA. Smith's Helmet-Shrike.

Not uncommon in the open woods, usually forming a member of the Drougo's regiment, though it sometimes dispenses with this protection. A flock of eight or nine individuals frequented a “Manzhanshe”-grove close to my homestead throughout the past winter accompanied only by a pair of *Graucalus pectoralis* and two Hornbills (*Lophoceros melanoleucus*). A stomach examined contained several grasshoppers. The natives regard this species as a bird of omen: should it cross their path, when hunting, from right to left, all is well, and they can proceed with full confidence of success; should it, however, cross from left to right, nothing but the worst of ill-fortune can await him who is so foolhardy as to disregard the warning, and the only sensible course is to go straight home. It is one of the few birds the flesh of which the natives will not eat.

50. CRATEROPUS JARDINII. Jardine's Babbler.

Plentiful everywhere, except in the forest and the open short-grass country. A stomach recently examined contained beetles, a beetle-larva, seeds and skins of Cape gooseberries (*Physalis*), and a large hard bean-like seed.

51. *PYCNONOTUS LAYARDI*. Black-capped Bulbul.

This is one of the most plentiful birds in the country, and is not uncommon even in Chirinda. It is an inveterate fruit-thief, but it is well to condone some of its misdoings as it also destroys great numbers of insects, and, though it has no sustained song, its notes are cheerful and pleasant. It will frequently build in a bunch of bananas, doubtless with a shrewd eye to the future.

52. *PHYLLOSTROPHUS CAPENSIS*. Cape Bristle-necked Bulbul.

This is one of our characteristic forest-birds, going about in parties in the denser portions of the undergrowth and uttering all the while a harsh croaking note; it is also to be found in forest-patches, kloofs, and dense thickets in the Jihu and elsewhere. It is distinctly shy, never shewing itself if it can avoid doing so, and on the arrival of a party at an open ride in the forest the birds will frequently cross it, only after much chattering and consideration, one by one. A nest which I found in December was placed amongst some low trailing branches about three feet from the ground on the outskirts of the forest. It consisted of a flimsy and untidy cup of small stems, including those of the thorny climbing acacia so common in the forest, and the fine stems of the "false maiden-hair." It was 2 inches in diameter (inside measurement) by 1 inch in depth, and was slightly strengthened by the addition, outside, of a few dry leaves, roots, grass-blades, and a little moss. The eggs, two in number, measured 10 lines by 7.5, and were white in ground-colour, handsomely blotched with grey and olive-brown, the markings being gathered for the most part into a bold zone encircling the larger end of the egg. The bird would leave the nest at the slightest alarm and slip noiselessly away in the undergrowth, but on my finally cutting off her retreat by an approach from within the forest, she shewed considerable boldness, hopping about and croaking at a distance of a few feet. The crops examined contained Guniti-berries, beetles, a grasshopper, and other insects. The irides of this species

vary from light golden brown to burnt-sienna; the legs are pale silvery grey, often with a fleshy tint; the soles usually yellowish.

53. PHYLLOSTROPHUS FLAVISTRIATUS. Yellow-streaked Bulbul.

This is the commonest Bulbul of the Chirinda forest, and, as I have shot it also in wooded kloofs and isolated forest-patches, I have little doubt that it will be found throughout the district in such situations. It may be seen during the winter, in fact from the end of February onwards, in parties of six or seven, searching the undergrowth, usually silently, or ascending the trunks of trees and saplings spirally and hunting for insects under the bark. While thus engaged it will repeatedly flap one wing, whether as an aid to balancing itself or in order to frighten out the insects I have been unable to ascertain. Dry leaves, or a broken branch caught up in the trees or undergrowth, are a great attraction, and are always carefully searched for what they may conceal; finally, when not actually engaged in gaining a livelihood, the birds may often be seen playfully chasing one another amongst the higher branches of the trees.

They have several notes, the most frequently heard resembling the syllables "*chip! chap! chop! chip-chap-chop!*" or again, "*chip! chap! chop! chip-chop-chap-charrap!*" which, with slight variations, are repeated several times in succession. Apparently two broods are reared in the season, as I have found nests containing eggs from the commencement of November right on into February. They are attractively-built but somewhat fragile structures (see text-fig. 2, p. 52), slung sometimes from a horizontally-forked twig, but more usually from the broad glossy leaves, at their junction with the stem, of a handsome *Dracæna*, which is common throughout the forest, from three to six feet from the ground. They are composed externally of a light frame-work of roots, tendrils, and one or two twigs or a little green moss, with a more solid bottom of dry leaves braced on by means of tendrils and roots, the whole being bound together with fine

cobwebs. The cup is usually somewhat elliptical—one in my collection measures 2·5 by 1·75 inches in diameter, and 1·5 in depth, and is lined with fine roots, fibres, and the thin seed-bearing stems of the “false maiden-hair.” Two would appear to be the full number of the clutch, for, though I have taken a dozen or more nests with eggs, I have never seen one with more. The eggs are remarkably handsome, of a rich, almost

Text-fig. 2.



Nest of *Phyllostrophus flavistriatus*.
(Usual type, strung from leaves of *Dracæna*.)

pink, brown-madder ground-colour, deepest at the larger end, which is almost invariably surrounded by a clearly-defined zone of bold spots, streaks, and pencillings of a darker crimson-brown, intermingled with similar underlying markings of grey; a few of the markings stray into the upper and lower portions of the egg, which are otherwise clear. Another type is paler and more purplish in ground-

colour, the streaks, particularly of grey, being finer and scantier and, though still arranged in a zone, tending to stray more completely over the larger end of the egg. A third type, of which I have one clutch only, is pure white in ground-colour, with merely a few pale madder spots and streaks encircling the larger end, in combination with the faintest of grey markings. Eggs which I have measured vary from 22.5 to 24 mm. in length, and from 16 to 17 mm. in breadth.

The sitting birds of this species are remarkably tame and bold, and I have, on more than one occasion, touched their bills as they sat and offered them insects; these they have never yet accepted, at least while I was in sight, but have remained unmoved. In January I photographed a sitting bird: the nest was about four feet from the ground in a dense thicket, so that I had to break away a number of small branches and twigs, some within a few inches of the nest; and, owing to the dry branches and other *débris* covering the ground, it was even then by no means an easy task to get the tripod and camera into position. But the bird sat through it all, only once, when a leg of the tripod suddenly slipped, raising one wing, as is its wont when hunting for insects, and once or twice making a faint sound of protest. Having given a two-minutes' exposure at three feet, I was encouraged to move the camera to within eighteen inches and there repeated the operation, finally leaving a small earthworm on the edge of the nest, under the bird's bill, as a token of my appreciation of her pluck. On another occasion an individual which had left the nest on my approach returned immediately and resumed her position on the eggs, facing round to me quite defiantly as I stood within three feet of her; while, on yet a third occasion, a bird sitting on a perfectly empty nest refused to move until touched, and then remained, abusing me heartily, within a few yards. This Bulbul is insectivorous rather than frugivorous. I have examined a number of the crops, and though Gumiti and other berries are sometimes present, insects—larvæ, small beetles, grasshoppers, a large bug,

a spider, the ova of a large moth—preponderate. A female caught on her eggs and brought to me, nest and all, rather to my annoyance, by one of my natives, would from the first moment readily take larvæ and grasshoppers thrust between the bars of her cage, but refused bananas and other fruits. The length of this bird in the flesh varies from 7·5 to 8·25 inches; the iris is chestnut-brown; the legs and feet are silvery bluish- or slaty-grey.

54. PHYLLOSTROPHUS MILANJENSIS. Milanji Bulbul.

Xenocichla milanjensis Shelley, Ibis, 1894, p. 9, pl. i. fig. 1.

I first shot an example of this bird, a female, on the 31st of July, 1899, in a wooded kloof in Mafusi's country, and I subsequently observed it in that locality on several occasions. It is extremely common in Chirinda, though, owing to its solitary and retiring habits, it is not seen so frequently as the preceding species. When, however, in the hope of securing something new, I fired at a bird of sober plumage, half hidden in a dense mass of foliage, it nearly always proved to be this Bulbul; and it is in such situations, whether low in the undergrowth or high in the foliage of the larger trees, that it is usually found, sitting still or moving about quietly. I have, nevertheless, on a few occasions, usually on the first appearance of sunshine after continuous rains, seen it flying about briskly on the outskirts of the forest in pursuit of the beetles and other winged insects which such a change in the weather always brings out in abundance, and uttering at intervals a loud and unmusical "*cha-cha-cha-cha-cha-cha-cha*," rapidly repeated sometimes for many seconds on end; this note is also employed by the bird in calling or answering its mate.

I have only twice found the nest of this Bulbul; on both occasions it was placed about sixteen feet from the ground, near the top of a straight slender sapling, and, looked at from below, reminded me not a little of that of the English Missel-Thrush. In the case of the first nest, taken on the 25th of November, a large spray of grey "Old-man's-beard" lichen (*Usnea* sp.?) was draped over the fork, evidently more

with a view to disguise than as an essential portion of the nesting-material. The nest proper consisted of a thin but neatly-rounded cup (2.5 inches in diameter and 1.5 deep), of somewhat coarse twigs--largely those of the thorny climbing acacia--and one or two fine grass-stems and roots. The bird sat very persistently on every occasion on which I visited the nest, not leaving until the sapling was shaken. There was one egg only, measuring exactly 1 inch by 8.5 lines, slightly pyriform in shape, dull white in ground-colour, densely mottled with underlying grey freckles, and less densely with spots, streaks, and large blotches of two shades of brown. Except that it lacked anything in the shape of soft or delicate marbling, it reminded me somewhat of the egg of a Nightjar. What the full clutch is I am unable to say; certainly, in this case, no more would have been laid, for the bird's ovary contained no advanced eggs. In the case of the second nest, found shortly afterwards, the sapling was again too thin to scale, and on my return later with a saw I found that the nest had been destroyed by baboons. In material and construction, even to the lichen-drapery, it much resembled the first.

Out of ten stomachs of this bird examined two contained small fruits only; three, fruits and insects, the former preponderating in each case and including a small bean; four, insects only--an earwig, small larvæ (both coleopterous and lepidopterous), beetles and other small insects; and the tenth, *nil*. These birds come readily enough to a trap baited with a piece of guava. The bill is black, the iris umber, while the legs and feet are medium greyish-brown, with yellow soles; these vary, however, to some extent, having been dark grey-brown in one of my specimens, in another pale brownish-grey, and in a third (the Mafusi specimen) vandyk-brown. The length of the bird in the flesh varies from 7.75 to 8.12 inches. In the young bird the white stripes on the ear-coverts are dull and inconspicuous; the bill is sepia-coloured; the iris of a very deep brown-sepia; while the legs are light dusky grey, the joints between the plates broad and whitish; the

soles brighter yellow than in the old bird. Length in the flesh 7·5 inches.

[This species, which makes an addition to the South-African Fauna, has been identified by Capt. Shelley, who originally described it in 1892 from specimens procured in Nyasaland.—P. L. S.]

55. *SYLVIA SIMPLEX*. Garden-Warbler.

I have seen a pair of Garden-Warblers on two or three occasions on the outskirts of Chipete. It is a well-known winter-visitor to the Transvaal (see Selater, *Birds S. Afr.* ii. p. 82).

56. *PHYLLOSCOPUS TROCHILUS*. Willow-Wren.

One specimen of this species was secured, out of a party which was searching the twigs of a large *Rauwolfia* for insects.

57. *SYLVIELLA WHYTI*.

Sylviella whytei Shelley, *Ibis*, 1894, p. 13.

These birds are not uncommonly met with in the open woods, usually going about in small parties and resembling the preceding species in their habits.

[Identified by Capt. Shelley: new to the South-African Fauna.—P. L. S.]

58. *APALIS THORACICUS*. Bar-throated Warbler.

This is the ordinary Warbler of the forest and occurs in favourable situations throughout the district. I found it not uncommon at Mafusi. It is the *Apalis* referred to by Mr. Marshall in the 'Ibis' for April, 1900 (p. 200), as differing from *A. thoracicus* in having a lemon-yellow abdomen and vent. There is a larger broad-banded and a smaller narrow-banded bird, but I have been unable to satisfy myself as to whether these are specific or merely sexual differences.

The call of this Warbler is a loud cheerful "*Pilly-pilly! Pilly-pilly-pilly!*" but more commonly, as it creeps about amongst the dense undergrowth or makes short flights after insects, it utters a long-drawn "*chwee chwee.*" The nest is

usually half hung, half supported in a shrub or in tall herbage, from eighteen inches to three feet from the ground, in the forest undergrowth. A favourite place, however, is a thorn-hedge on the outskirts of the forest, and I once found a nest in a small shrub growing in the bottom of a game-pit. It is usually of a neat oval shape, domed, and almost entirely composed externally of a thin layer of moss, strengthened scantily with fine grass and occasionally a very little lichen: it is lined throughout, including the dome, sometimes sparingly, at other times thickly, with fine vegetable down (usually from the pappi of a large latex-yielding liana common in Chirinda), intermixed with the seed-bearing stems of the "false maiden-hair" and other such fine material. An average nest in my collection measures 3 inches from front to back, 4 inches in depth, and 2.75 in width; opening 1.5 wide by 1.75 deep; diameter of cup 2 inches. One nest had a small back entrance in addition to the usual opening. The eggs are of two distinct types, and this at first appeared to confirm my idea that there were two distinct forms of this bird, but I have since found two clutches which afford a connecting-link, and in any case more evidence is required. The first type of egg is pale blue with large spots of brown-madder, chiefly about the thicker end, and belongs, should there be two varieties, to the narrow-banded bird, which I have twice shot from the nest. The second much resembles the egg of the English Wren, being pure white in ground-colour, minutely freckled and spotted with reddish brown and a little purple-grey, again chiefly about the larger end. I have twice noted that the birds sitting on these eggs have the broader band. The intermediate forms to which I have referred were (1) pure white with the larger blotches, and (2) bluish white with the minute spots. Three is the number of the clutch, and the eggs measure from 15 to 17 mm. in length and 12 in breadth. The birds themselves, measured in the flesh, vary from 4.25 inches (narrow-banded) to 5.15 (broad-banded); bill black; legs pale brownish pink; iris pale Naples yellow, sometimes with a tinge of green. The crops examined have contained grass-

hoppers, larvæ (both of moths and beetles), moth-ova, "Gumiti"-seeds, and small flies.

59. *APALIS CHIRINDENSIS*. Chirinda Bar - throated Warbler.

Apalis chirindensis Shelley, Bull. B. O. C. xvi. p. 126 (1906).

I have frequently watched small parties of these little Warblers in the forest, where they keep chiefly to the higher branches of the trees as they search for insects amongst the flowers and leaves, after the manner of White-eyes. The crops examined contained small beetles and flies. Length in the flesh from 4·8 to 5·25 inches.

[This species, lately characterized by Capt. Shelley, is new to the Fauna of South Africa. He has supplied the following notes on it :—

"*Apalis chirindensis* is similar to *A. cinereus*, but differs in having the forehead and crown of the same shade of dusky grey as the entire upper parts, and in the white of the tail being confined to rather narrow ends of the four outer pairs of feathers; most of the under wing-coverts and inner margins of quills white, with the remainder of the under surface of the quills and the pinion dusky black; under parts white, somewhat washed with a brownish shade. Iris pale orange-brown; bill blackish; legs pale pinkish brown. Length in the flesh 5·25 inches (now 4·9)."

The specimen described was obtained in the Chirinda Forest at an altitude of 1000 feet on June 14th, 1905.—P. L. S.]

60. *PRINIA MYSTACEA*. Tawny-flanked Wren-Warbler.

Commonly met with in the open grass-veld and Jihu, but more especially near "vleis" and streams. Several clutches of eggs, unfortunately not identified, in a collection made recently by a neighbour exactly resemble those of *Prinia mystacea* taken by myself a few years ago near Salisbury, and I have recently (March 5th and 25th) had two nests brought to me containing eggs, one with the sitting bird. Both were composed of fine grass-blades strongly woven together and forming a deep semi-domed sac

(external diameter 2.5 inches, total depth 4), with the opening practically at the top; in one a number of small downy pappi were worked into the general structure, externally and also as a ceiling to the somewhat diminutive dome, but none entered into the lining. The leaves of the twigs supporting the nests had been perforated along their edges by the bird's bill and were neatly sewn to the nests by means of fine grass-blades passing through the openings. The eggs were three in number, those of the sitting bird which was brought to me measuring 17 by 12 mm., and being pale grey in ground-colour, faintly clouded and obscured with palest purplish brown and covered with irregular fine streaks of darker shades of the same colour.

61. *CISTICOLA CINERASCENS*. Grey Grass-Warbler.

Our commonest Grass-Warbler, at all events in the vicinity of Chirinda. A nest was brought to me a few days ago (March 11th), together with the female; it contained three eggs, slightly set, white, with blotches, mostly large, but some in each case tending to form a rough zone round the larger end, of light purplish brown and purplish grey; they averaged 19 mm. in length by 13 in breadth. The nest, which was supported between high weeds, measured 3 inches in diameter by 4.25 in depth, the cup 2 inches in diameter, and consisted chiefly of grass-blades, intermixed with down and bound together with spiders' webs; the interior was warmly lined with down and one or two small feathers, and over the top of the nest, which was domed, were bound three large leaves, greatly strengthening the structure.

I have observed this bird at sunrise in the grass-jungle, sitting on a tall grass-stem or projecting custard-apple twig, with wings drooping and back-feathers and tail erected, thawing in the early rays and uttering now and then a clear musical call.

62. *CISTICOLA RUFA*. Fraser's Grass-Warbler.

A Warbler recently obtained by Mr. Stanley in the neighbourhood of Mafusi has been identified by Mr. W. L. Selater as belonging to this species.

63. *CISTICOLA SUBRUFICAPILLA*. Grey-backed Grass-Warbler.

Apparently fairly plentiful, particularly in grass-jungle. Several examples have been brought to me of late, limed by a native in the neighbourhood of Chipete. This Warbler possesses quite a characteristic call, a loud repeated "*Pee! pee!*" with the second note pitched in a lower key than the first, which it pipes from the top of a bush or stake.

64. *CISTICOLA NATALENSIS*. Natal Grass-Warbler.

A fairly plentiful bird in the grass-country, where it is often seen perched on some small tree. The crops examined contained beetles and grasshoppers.

65. *TURDUS CABANISI*. Cabanis's Thrush.

This is a resident species and is the common Thrush of Chirinda. It is a shy bird and mostly frequents the darker thickets of the forest, where it is often to be found feeding on the ground, flying up into the undergrowth when disturbed. Two stomachs examined contained only "Gumiti"-seeds, and I once trapped this bird with a piece of guava as bait. It was probably breeding in December, as during that month a pair of birds used to fly round me in great agitation whenever I approached a certain spot. In spite of careful search I failed to find the nest, which was probably placed high in one of the forest-trees.

66. *TURDUS LIBONIANUS*. Kurrichaine Thrush.

This species is fairly plentiful in the kloofs and the somewhat denser portions of the open woods throughout the year, but is not found in Chirinda. A bird trapped in February had evidently been sitting. The stomachs that I have examined contained beetles, larvæ (Melalonthid and other), a locust, grasshoppers, a green shoot (probably of a germinating seed), and, in one case, seeds.

67. *MONTICOLA* sp. inc. Rock-Thrush.

Of this bird I have shot only one specimen, which is in immature plumage. It was one of three which were feeding on the ground in open "*Manzhanshe*" wood and rose into



Erithacus swinhoei (Gün.)

Bale & Danielsson, 1st imp.

ERITHACUS SWINHÖEII GÜN.

the trees on being disturbed. It measured in the flesh 7 inches, but was very stoutly built in proportion; its stomach contained a beetle and the *débris* of other insects.

68. ERITHACUS SWYNNERTONI. Swynnerton's Robin.
(Plate I.)

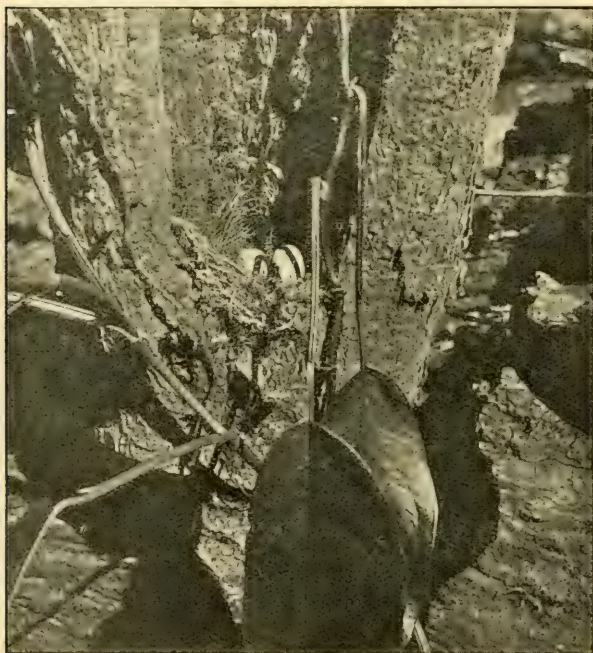
Erithacus swynnertoni Shelley, Bull. B. O. C. xvi. p. 125.

This little bird is one of the commonest of our resident forest-species, and, in spite of its comparative shyness, resembles the English Robin not a little in its general habits. It is purely a ground-feeder, and I have frequently watched a pair searching for food in the open rides of the forest, where a fallen log is a favourite perch. It becomes more shy during the breeding-season, when the sitting bird will leave the nest on the slightest alarm, and, joined by her mate, anxiously hop about on or near the ground, a few yards away, but without shewing herself, uttering all the time a long-drawn querulous little note. When the young are hatched, however, the parents become bolder, shewing themselves freely within a few feet of the intruder and heaping him with reproaches. A slight modification of the note may be heard throughout the winter months, and I have occasionally heard a little song which I believe to come from this bird.

The nest is usually placed from three to five feet from the ground in a clump of *Dracænas*, against the stem, and is supported below by the horizontally projecting leaves; it is composed of moss, or, more frequently, of dry and skeleton leaves, or sometimes both, held together by coarse leaf-stems and a few roots, or occasionally one or two twigs or grass-blades. The cup, which measures 2 inches or 2 by 1·5 in diameter and 1·5 in depth, is neatly lined with fine roots and fibres. Another not unusual nesting-place is the top of a felled sapling which has sent out four or five fresh shoots. The nest is placed between these, and, especially when partially hidden by foliage, looks like a mere continuation of the stem, the birds being careful in this case to allow little or no material to hang over the edge. Once only have

I found a nest placed elsewhere than in one of the two positions described. This nest (text-fig. 3) was in a small hollow stump, two feet from the ground, and consisted solely of a cup, the hole being lined with fine black stems resembling those of the maiden-hair fern (which, however, has not yet been found in Chirinda). In front were woven in a few half-skeletonized leaves of the same shade of yellow as the bark

Text-fig. 3.



Nest of *Erithacus swynnertoni* (in hollow stump).

and much resembling it, bringing the cup flush with the outside of the tree.

The eggs of this bird are invariably two in number, and vary very little in coloration, all that I have seen having been pale blue-green in ground-colour and covered with numerous red-brown spots and freckles, usually denser at the thick end. Exceptionally these are collected into a rich zone or

patch at the larger end, leaving the rest of the shell comparatively free. Those in my collection vary from 20 to 23 mm. in length and from 14 to 15 mm. in breadth. The bird varies from 5 inches to 5.5, measured in the flesh. Iris umber-brown, legs pinkish grey; the iris of the immature bird is darker, being hardly distinguishable from the pupil, and the legs are white, tinged with purple on the toes.

[Capt. Shelley has furnished us with the following notes on this remarkable bird :—

“ *Adult male.* Head and neck deep grey, slightly darker on the crown and down the centre of the throat, which ends in a large white patch entirely surrounded by black; back and scapulars yellowish brown; wings and tail deep grey, the inner webs of the quills dusky blackish with whitish inner edges; greater portion of the inner under-coverts rufous-shaded yellow like the axillaries; chest and sides of the body slightly darker rufous-shaded yellow, separated from the white base of the throat by a sharply defined narrow black band; centre of abdomen and under tail-coverts fading into pure white; thighs grey with a little white towards the tarsi. Iris brown; bill black; legs pinkish grey. Length 5.2 inches.

“ *Adult female.* Differs from the male only in the upper parts being of a slightly more olive shade; the feathers of the crown, back of neck, lesser wing-coverts, quills, and central tail-feathers having their edges somewhat washed with olive. ‘Iris brown; bill black; legs pinkish grey.’

“ *Young.* Differs in the colouring of the head, neck, and wings. Feathers of the forehead and crown dark brown, with small subterminal rufous spots; remainder of head and hinder half of neck paler and more greyish, with similar but rather larger rufous spots; the throat fades into white on the middle third and then into a dark rufous-brown collar next to the crop; some of the feathers of the fore-mantle and median wing-coverts with rather large rufous spots; quills with their outer edges brownish and their inner edges scarcely paler than their general under surface. ‘Iris sepia-coloured, darker than in the adults; bill dusky brown, pale

at the base; legs white, with a purple tinge on tarsus and knee-joint.' Length in the flesh 5·3 inches.

"This new bird, which I have had the pleasure of naming after its discoverer, is perhaps most nearly allied to *Erithacus gutturalis*, but in size and structure agrees perfectly with *E. rubecula*, with the exception of the bill being slightly longer. It somewhat resembles *Tarsiger* in the colouring of the head, neck, back, and wing, and in having a white mark on the throat, but it has no white on the head; it differs from *Tarsiger* in the bill being slightly narrower, rictal bristles almost absent, wings more rounded, and in having no pattern on the tail. It may be a connecting-link between *Erithacus* and *Tarsiger*, but in my opinion most nearly approaches the former genus."—G. E. S.]

69. PRATINCOLA TORQUATA. South-African Stone-Chat.

One of the commonest birds of the grass-veld, where it may usually be found perched on the bare top of some small fire-killed sapling or bush, from which it makes short flights in pursuit of insects. An upright stake in cultivated ground or the leader of a young cedar are also favourite perches. The native name, signifying "ply the hoe," has been given to the bird in allusion to its habit of commencing to call at earliest dawn, inviting men, they say, to come out and commence the day's work; and its local Dutch name, "Dag-bruiker," also has reference to its early habits.

70. SAXICOLA PILEATA. Capped Wheatear.

This is a plentiful winter visitor.

71. COSSYPHA NATALENSIS. Natal Robin-Chat.

This charming little bird is a common summer-visitor to Chirinda and the neighbouring forest-patch of Chipete, where its two trilling notes, as it passes along through the undergrowth, may be constantly heard during the breeding-season. It appears not to occur outside the forest-patches. The natives regard it in the light of a "will-o'-the-wisp," stating that if a man should follow one it will lure him on into the heart of the forest and there leave him. Its nest—

I have examined a number this season—is placed either, like a Nightingale's, on the ground amongst the dry leaves at the foot of a tree or in a depression of the trunk, seldom more than three feet from the ground. It is composed externally of coarse twigs, leaf-stems, an occasional grass-blade or a little moss, and quantities of dry and skeleton leaves; most of the material, when the nest is raised from the ground, being massed in front. The cup, which is 2·5 inches in diameter, is lined with roots, fine grasses, &c., and the eggs exactly resemble those of the Nightingale, being of a uniform olive-brown, with occasionally a few darker markings shewing very faintly towards the larger end. I have also twice found eggs of a comparatively pale grey-green, this again corresponding to an uncommon type of the eggs of the Nightingale. In length they vary from 20 to 25 mm. and in breadth from 14·5 to 17 mm. I once found a nest in a thick clump of *Dracena*, close to the trunk of a large tree and about fifteen inches from the ground. The bird is shy, usually flying off at an intruder's approach, but on two occasions has allowed me to stand and watch it from within a few feet. This species is wonderfully attractive with its large soft eyes and its orange and blue plumage. The young, with their mottled black and yellow colouring, are very different in appearance to the parents.

72. *COSSYPHA HEUGLINI*. Heuglin's Robin-Chat.

Though not very frequently seen, the results of my trapping operations prove this to be by far the commonest bird of the wooded kloofs and of the thickets which frequently border our streams. In Chirinda itself I have only twice found it, on both occasions in the same narrow projecting spur of forest, near water. The stomachs examined have nearly always contained beetles, less frequently seeds, occasionally other insects, such as termites and harvesting-spiders, and once small bones, apparently of a lizard. The notes of this bird are flute-like and remarkably pleasant. Its length in the flesh varies from 7·5 to 8·8 inches.

73. *COSSYPHA CAFFRA*. Cape Robin-Chat.

I have seen only a single specimen of this bird, shot last June in a patch of grass jungle and thorns close to Chirinda. It was moving quietly about in the rank vegetation. Length in the flesh 7 inches. The stomach contained small beetles.

74. *TARSIGER STELLATUS*. White-starred Bush-Robin.

Extremely common in Chirinda, though, owing to the fact that it searches for its food on the ground amongst the denser undergrowth, it is comparatively seldom seen. It is a silent bird, and on two occasions I have seen it watching me boldly—though shy enough as a rule—from a neighbouring twig or log, without uttering a sound or shewing other signs of agitation, while I examined its nest. This is large and domed, with an elliptical opening in the side, and is placed on the ground in a clump of ferns or amongst dry leaves, sometimes at the foot of a tree, while it is so well assimilated to its surroundings that the specimens which have come under my notice could not but have been taken for mere excrescences in the leaves and moss littering the ground, had not the bird flown out. A typical nest now before me consists of dry leaves, moss, a little fine grass, and a few small roots and twigs, the latter including fine stems of the thorny climbing acacia so common, unfortunately, in Chirinda, arranged, doubtless as a protection, round the opening; it is lined with fine grass and fibres; the opening is 2·5 inches wide by 2 deep; the diameter of the cup 3 inches from front to back; the total depth of the nest 5 inches. Three would appear to be the full number of eggs, which are not unlike those of the English Robin, being pure white in ground-colour freckled and blotched with brownish red: the markings are in some specimens fairly evenly distributed, in others collected at the larger end; in drying, some of the markings assume a greyish tinge. The eggs in my collection measure from 21·5 to 23·5 in length, and from 14·5 to 15·25 mm. in breadth.

In May, out of nine stomachs examined one contained "Gumiti"-berries only, two insects only, and the remainder

insects and "Gumiti"-berries; the insects included a large caterpillar resembling that of *Bombyx neustria*, a beetle-larva, and ants and beetles. In June and the beginning of July eight stomachs were examined; all (except one, which was empty) contained insects and so forth—pupæ, a caterpillar, beetle-larvæ, flies, a termite, a scorpion, a wire-worm, ants, and beetles,—while in two only were there Gumiti-berries as well. These berries were plentiful in May, but are over in June, with the occasional exception of some belated twig which has retained its fruit after the general crop has fallen. Thus during May I found these Tarsigers to be very largely frugivorous (and they would be so for half the year, for the Gumiti-season is a long one), but in June they became insectivorous, though remaining ground-feeders. I have only once found flies in the stomach. Legs ochreous grey; iris brown. Length in the flesh 6 inches.

75. *BRADYORNIS MURINUS*. Mouse-coloured Flycatcher.

This bird is abundant in the open woods. Three stomachs which were examined contained a large locust, a caterpillar, a mantis, ova (probably of a large moth), termites, and small beetles.

76. *MUSCICAPA CERULESCENS*. Blue-grey Flycatcher.

A female, trapped recently by a bait of beetle-larva in a wooded kloof close to my homestead, is the only specimen of this bird which has come under my notice. Length in the flesh 6.3 inches. Contents of stomach, large black ants and beetles.

77. *HYLIOTA AUSTRALIS*. Mashonaland Flycatcher.

Occasionally seen in the open woods, never in the forest.

78. *SMITHORNIS CAPENSIS*. Cape Broadbill.

To judge by the results of my trapping operations, this Flycatcher must be fairly plentiful in the wooded kloofs; and during the past season I have found three nests in Chirinda. These were all more or less alike in composition, being in each case a bulky and untidy domed structure of leaves and grass-blades, a little moss (externally), and a few

small roots, stems, and fibres, roughly woven and cemented together by means of spiders' webs, the whole being slung by a broad band of green moss, stiffened with spiders' webs and a very few small roots and stems, from a horizontal twig at three, six, and nine feet respectively from the ground. There was no lining, the general material of the nests being

Text-fig. 4.

Nest of *Smithornis capensis*.

merely worked into a smooth cup, with a diameter, front and back, of 2 inches, and a depth from the opening downwards of 1.5. From every nest was suspended a long untidy tail of in one case moss, in the others grass and weed-stems, bringing the total length to 18 inches or even 2 feet, and giving the whole fabric much the appearance of the chance lumps of moss, orchids, and dry leaves which one commonly finds hung

up in the undergrowth. The clutch in each case consisted of three glossy eggs, which were pure white, with the beautiful semitransparent appearance of those of a Woodpecker, and of a long oval form; they varied from 21·5 to 23 mm. in length and from 15 to 16 mm. in breadth. I found the birds exceedingly shy and stealthy, slipping down into the undergrowth at the slightest alarm and slinking away unseen to a considerable distance, whence they silently watched the proceedings from the branch of some small tree. It was consequently only as the result of repeated visits and long watching that I succeeded in identifying the nests. In one case two of the eggs disappeared, but the bird continued to sit on the third. The stomachs always contained numbers of beetles, and in one case a large black hornet. Length in the flesh from 6 to 6·1 inches.

79. *PLATYSTIRA PELTATA*. Green-throated Flycatcher.

I shot a male of this handsome little Flycatcher in a forest-patch in the Tchikamboge Valley in August 1899, and subsequently watched a pair for some time in the open bush not far from Makwian's kraal, again securing the male. Eye-wattles bright scarlet. Contents of stomachs, small beetles. In all probability, this bird will prove to be not uncommon in Mafusi's country.

80. *PACHYPRORA DIMORPHA*. Milanji Flycatcher.

Pachyprora dimorpha Shelley, Ibis, 1903, p. 18 (Nyasaland).

An aristocratic little species, and the common Flycatcher of the forest-patches and densely-wooded kloofs. Its quaint little song sounds as though it were being produced by clectwork, and is frequently heard in Chirinda. The birds—they go about in pairs throughout the year—will take up their station on some twig commanding a comparatively open space, and thence make short flights after passing insects: small beetles, caterpillars, and a large beetle-grub were the contents of the stomachs examined. I found a nest containing three eggs on the 18th of November; they were bluish white, with a clearly-defined zone of dark

brown, pale brown, and pale violet-grey spots and blotches round the larger end, a few of the pale brown blotches appearing also on other portions of the egg, which measured 19 by 14·5 mm. The sitting bird allowed me to watch her from within two yards of the nest, which was placed in the fork of a small sapling about three feet from the ground; it was neatly made of soft grass-blades and fibres, bound with abundant spiders' webs into a compact though thin and shallow cup, and thickly lined with the finest of dry branching stems, probably from some low-growing forest-plant. The outside of the nest was ornamented with scraps of blue-green lichen affixed by means of web.

81. *PACHYPRORA MOLITOR*. White-flanked Flycatcher.

The common *Pachyprora* of the open woods; it does not occur in the forest. The stomachs examined contained small beetles and flies, ants, large diptera, coleopterous larvæ, and a wasp.

82. *TROCHOCERCUS ALBONOTATUS*. White-marked Flycatcher.

Trochocercus albonotatus Shelley, B. Afr. i. p. 99.

These birds are very plentiful in Chirinda, where it is pretty to watch a pair of them at play, tumbling about in the air, spreading their tails to their fullest extent, and uttering a weak but pleasing note. The nest (text-fig. 5) bears some resemblance to that of *Pachyprora capensis*, but, apart from the difference in the material employed, the walls are somewhat thicker and more rounded and the cup half as deep again. It is usually placed in the fork of some low shrub or sapling, two or three feet from the ground, and consists of a perfectly neat and symmetrical cup of soft green moss bound into a fine felt by means of spiders' webs and decorated outside with scraps of silvery lichen, the mottled appearance thus imparted to it combining with its small size to render it inconspicuous; it is lined within with lichen and a few stems of "false maiden-hair." I have only once secured the eggs—on December 28th—two in number, of the same size as those of *Pachyprora dimorpha* and of a dirty-white

colour, blotched and spotted with greenish olive (fading later to olive-brown) and grey, chiefly at the larger end, which, in one egg, was surrounded by a distinct zone. I had found nests with young birds a few weeks previously. The female was shy, leaving the nest at once on being approached, and flying off to some little distance, where she commenced her usual evolutions quite unconcernedly, probably to divert

Text-fig. 5.



Nest of *Trochocercus albonotatus*.

attention from the nest. A crop examined contained small beetles and flies.

[Apparently new to the South-African Avifauna.—P. L. S.]

83. TERPSIPHONE PLUMBEICEPS. Lead-headed Paradise Flycatcher.

Tchitrea plumbeiceps Reichen. Vög. Afr. ii. p. 510.

Till recently I had considered this species to be *T. per-*

spicillata, and had only taken the trouble to secure one skin, but it proves to belong to *T. plumbeiceps*, which Mr. W. L. Selater has just identified for Mr. Stanley. Probably both forms will be found to occur here. It is a playful little Flycatcher, and may be found throughout the district, but appears to be especially common at Mafusi and in the Jihu, where, during a recent visit, I found it going about in family-parties. It is also sometimes found on the outskirts of Chirinda. The tail-feathers of the Paradise Flycatcher used to be reserved for the exclusive use of Gungunyana's wives.

[Apparently new to the Fauna of South Africa.—P. L. S.]

84. DICRURUS AFER. Fork-tailed Drongo.

This is the "Roek-Vogel" (Smoke-bird) of the local Dutch, so called on account of its being always to the fore, in flocks of five, eight, or even eleven individuals, when a grass-fire is in progress, dashing backwards and forwards through the smoke after the fleeing insects. The crops of two shot in June, while thus engaged, contained a wasp, a cicada, and numerous beetles and flies. The habit of this species, already referred to, of assuming the leadership of the flocks of small birds so often met with in the open bush, has led to its being called by the natives "Induna yezinyone"—the General of the Birds. It will attack all owls, hawks, and snakes which approach its charge; and even when one of them has seized its prey the Drongo will frequently succeed in making it drop the captive, by swooping down on the back of the marauder, and generally harassing and blinding it. According to the natives, a Drongo is never bitten by a snake, owing to its confining its attack to the back of the head and carefully avoiding the fangs. It is said also to bait—but at a more respectful distance—lions, leopards, and other wild animals, betraying their presence to the natives by its excited cries and actions.

85. DICRURUS LUDWIGI. Square-tailed Drongo.

This is the common Drongo of the forest-patches, to which it confines itself. It possesses to the full the bold habits and

the loud and varied cries of its near relative, *Dicrurus afer*, and quite takes its place in Chirinda as the "Induna yezinyone," for not only will it fearlessly defend the rights of its own followers, but is also perfectly ready to play the knight-errant to *any* forest-damsel in distress. Only the other day, on going up to a sapling in which a *Haplopetia* was sitting on her eggs, I was vigorously assailed by a pair of Drongos, one of which flew straight at my face, and only turned back when within a yard of me: they were backed, with noise rather than action, by a family-party of Bulbuls. Yet the Doves are not of the Drongo clan! At the same time, as I have already pointed out, the forest Drongo, however willing, can be of little actual service to his followers, for they are already well-protected from hawks. The stomachs examined contained beetles, diptera (large and small), and other insects.

86. CAMPOPHAGA NIGRA. Black Cuckoo-Shrike.

I secured a female, of which the ovary contained a fairly-advanced egg, in November last, on the Lower Umswirezi. It was sitting quietly in a large shady thorn-tree near the river; and I had the good fortune to bring down a specimen of *Chrysococcyx klaasi* with the same shot. The stomach contained the *débris* of small insects.

87. GRAUCALUS PECTORALIS. Black-chested Cuckoo-Shrike.

By no means an uncommon bird in the open woods, and an occasional visitor to the outskirts of Chirinda.

88. HIRUNDO DIMIDIATA. Pearl-breasted Swallow.

Fairly common throughout the year. A Swallow of any species, charred and ground to powder, is still looked on by the natives as a most powerful charm; and in the fighting-days of a few years ago these birds were much sought after by the young Manguni warriors, the ashes, rubbed into cuts in the knees, being supposed to impart extraordinary swiftness and endurance, and at the same time a charmed life and

the power of infallibly slaying one's opponent, though not immunity from wounds.

89. *HIRUNDO ATROCÆRULEA*. Blue Swallow.

In March I noticed a flock of these birds several times, flying in and out of the high trees on the outskirts of Chipete. They roosted every night on the long grass-stems in a sheltered kloof hard by, retiring to rest at or before sunset, and not rising till after the sun was well up.

90. *HIRUNDO PUELLA*. Smaller Stripe-breasted Swallow.

This is our commonest Swallow, remaining with us throughout the year and nesting under ledges in the rocky "kraantzes" throughout the district. Baboons are said to destroy a large proportion of the nests built in such situations. Two or three pairs of these Swallows build annually in my verandah.

91. *PSALIDOPROCNE ORIENTALIS*. Eastern Rough-winged Swallow.

In the summer months, at all events, this species appears to be nearly, if not quite, as common as the preceding, from which it is generally distinguishable by the flash of its under wing-coverts as it hawks backwards and forwards, usually in the neighbourhood of the forest-patches.

[To be continued.]

III. — *On a Collection of Birds from Western Persia and Armenia*. By HARRY F. WITHERBY*. *With Field-Notes by R. B. WOOSNAM.*

(Plate II.)

THE birds described in the following pages were collected by Mr. R. B. Woosnam, who accompanied Colonel A. C. Bailward during a journey from the Persian Gulf through Western Persia to Armenia and across that country to the Black Sea.

* [The Editors are not responsible for the nomenclature employed in this article.—EDD.]